THE UNITED STATES CENTS OF THE YEARS 1798 · 1799

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U.S.-Cents-R C537 U55 c.2

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UNITED STATES CENTS
OF THE YEARS
1798–1799

By GEORGE H. CLAPP

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To Howard R. Newcomb and Henry C. Hines,
whose help and encouragement gave inspiration
to the task, this book is respectfully dedicated.

G. H. C.

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PREFACE

Much work remains to be done before we can expect to have a complete list of all varieties of the large Cents of The United States. Crosby did his work on the Cents of 1793 so thoroughly that nothing has been added to his list in thirty-four years with the exception of a minor, lettered edge variety of C-11-J. Frossard (Hays) on 1794 has been brought up-to-date by Gilbert and Chapman. Gilbert published on 1796, with supplements, but his work is far from complete, contains some duplications, and several varieties unknown to him have been found, so the whole series needs careful revision. In 1925 Mr. Howard R. Newcomb published a superb work on 1801, 1802 and 1803 and it brought to light three varieties that he had not seen which he has now published as supplements.

By this it can be seen that only six out of the sixty-four years during which large cents were issued have been adequately covered, and collectors have to depend on Doughty and Andrews for the other years, except for scattered notes and lists published in Numismatic Journals.

This is an attempt to bring out a book on the Cents of 1798 which will be thought worthy to be classed with the above works on 1793, 1794, 1801, 1802 and 1803; it is the result of over eight years of study, and the help of numerous collectors, of whom I am particularly indebted to Howard R. Newcomb and Henry C. Hines.

Francis W. Doughty in his work on "The Cents of The United States", published in 1890, listed twenty-seven varieties of 1798 cents, while forty-seven are here listed, and it is to be expected that additional ones will turn up. When the end of the series was reached it was found that 1799 overlapped with 1798, so that date has been included to make the work complete.

December
1921

George H. Clapp

THE CENTS OF 1798

A STUDY of the obverses of the cents of 1798 shows several well-marked characters which divide them into six distinct Groups based on the treatment of the hair, the shape of the letter R and large or small 8.

The hair is treated in two styles, the first, which will be called "Type 1", is the same as the "Fillet Head" of 1796 and was continued through 1797. In this the hair is simply treated, falling loosely in back of the neck and shoulder and ending in two curls. There are also two loose curls below the ear and another below the knot. This type is found on Numbers 1 to 24 inclusive.

In "Type 2" the ends of the hair and the two curls below the ear are more tightly curled, and there is an additional curl back of the shoulder. With the exception of D-139-140 of 1800, which are of Type 1, (these were struck from a die of 1798 altered to do duty by reengraving the date) this type was continued through 1807. "Type 2" occurs on Numbers 25 to 47 inclusive.

Type 1 Hair

Type 2 Hair

In LIBERTY two types of R were used, the first with a straight "tail" **R**, and the second with a curled "tail" **R**. In 1793 the first was used on the Chain cents and, much exaggerated, on the Liberty Caps, the second was used on the "Wreath" cents with the exception of Crosby 8-F where the first type was used. In 1794 the first type was used on Hays 5 to 49, 57 to 59 and 61 (Gilbert Mss., which appears to be the same as C-27). In Chapman 5 to 52. The second type was used on Hays 1 to 4, 50 to 56 and 60. In Chapman 1 to 4 and 53 to 59. The exaggerated R of the 1793 Liberty Caps was used in 1794 on the reverses of H-8, H-24 and H-37, the last two having the same reverse, and H-32. In 1795 the first type was used on all varieties with the exception of the so-called "Jefferson Head". The first type was continued through 1796 and 1797 with the exception of D-96-97 of 1797, which have the same obverse, where the second type was used. In 1798 the first type was used only on Numbers 1 to 7 inclusive.

In the date two sizes of 8 were used and as the large 8 was used on the "overdates", Numbers 8, 9 and 10, it seems reasonable to assume that the varieties on which it is found were earlier in issue, with the exception of Numbers 25, 26 and 27, the same obverse, which appears to belong in a Group by itself.

In arranging the different varieties into Groups, the overdates were first made Group I as probably the first struck, but as the work went on, and more material was studied, it was deemed best to call them Group II, as other characters seemed to connect Numbers 1 to 7 more closely to 1797. Whether the overdates were made from dies actually started in the previous year or were due to carelessness on the part of the die cutter are questions which cannot be answered.

Arranging the obverses according to the type of hair, R, and large or small 8, they fall in six Groups and these Groups will show the probable order of issue. The Groups are as follows:

Group	Date	Hair	R	8	Numbers
I	Perfect	Type 1	**R**	Large	1 to 7 inclusive
II	Overdate	Type 1	**R**	Large	8, 9, 10
III	Perfect	Type 1	**R**	Large	11, 12
IV	Perfect	Type 1	**R**	Small	13 to 24 inclusive
V	Perfect	Type 2	**R**	Large	25, 26, 27
VI	Perfect	Type 2	**R**	Small	28 to 47 inclusive

Group I differs from all of the other Groups in the shape of the L and E in LIBERTY, they being shaped **L** and **E** while on all other Groups they are **L** and **E**, and the L is larger.

Obverse 19, Numbers 25, 26, and 27, is the only one having Type 2 hair and large 8, 7 is short, being the same length as 9, and the bottom of 9 is wedge-shaped.

On the reverses three styles of N were used in ONE CENT, perfect wide, perfect narrow and wide imperfect at the right top. The wide N measures 2 mm just below the top, while the narrow N measures 1½ mm at the same point. The wide, imperfect N has the right top so short that in some cases it appears to be missing; it is found only in ONE on the "O" group of reverses and the narrow, perfect N is found in CENT in the same group, with but one exception, No. 39, Rev. BB and this only differs from the "O" group in having E in AMERICA first cut reversed. All other reverses have both N's wide and perfect.

The Cents of 1798 are found with the edge both plain and partly milled in

the same variety. This milling consists of rather faint, diagonal lines which rarely extend completely across the edge and never, so far as seen, extend entirely around the planchet. Unless mentioned, the edge is plain.

Forty-seven varieties of 1798 have so far been recognized and the known broken dies will bring the number of "combinations" up to about 150. To publish them all would be very confusing to a beginner, and might also discourage the advanced collector. In view of this large number, and after consultation with other collectors, it has been deemed best to limit the "combinations" described to the perfect die, the first appearance of the break or breaks and the last, or most advanced, stage of the breaks that we know. In several cases the last stage is very rare as it means the final failure of the die.

In some varieties only the perfect die is so far known, and in others only the broken die, so other combinations will probably turn up.

As there were 34 obverse and 34 reverse dies used in 1798 only one of each, with three exceptions, is shown on the plates, the best and sharpest available being used for illustrating, so it may be either the perfect or the broken die, but in either case the varietal characters can be readily noted. The description of the plates will show which variety and combination is illustrated.

No attempt has been made to indicate the comparative rarity of the different varieties except in cases where only one to three specimens have been seen, and these are noted.

To expedite identification first locate the cent in the proper Group, this will give numbers to be looked up in Key on page 10. Distinctive characters of obverse and reverse are printed in italics.

A convenient way of designating the varieties is to use the number of the variety as the numerator, and the obverse and reverse as the denominator. For example No. 1 would be written $\frac{\text{No. 1}}{\text{Obv. 1, Rev. A}}$, or, simplified, $\frac{1}{\text{1-A}}$, $\frac{1}{\text{1-A}^{\text{b}}}$ or $\frac{1}{\text{1-A}^{\text{c}}}$ depending on the combination.

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GG
HH
1799
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A
A
B

DESCRIPTION OF PLATES

OBVERSES

Cent Illustrated				Cent Illustrated			
Obv.	No.	Obv.	Rev.	Obv.	No.	Obv.	Rev.
1	1	1	A[b]	19	23	19[c]	N[d]
2	3	2	C	20	24	20[b]	Q
3	4	3	C	21	27	21[d]	T[d]
4	5	4	D	22	28	22	E[c]
5	6	5[b]	E[b]	23	30	23	U
6	7	6	F	24	31	24[b]	U
7	8	7	F[c]	25	32	25[d]	V[c]
8	10	8[b]	H	26	33	26	W
9	11	9[b]	E[d]	27	34	27[b]	X[c]
10	12	10	I[b]	28	36	28[b]	O[b]
11	13	11[c]	J[b]	29	39	29[b]	BB[b]
12	14	12[b]	K[b]	30	41	30[c]	DD
13	15	13[b]	H	31	42	31	EE
14	16	14[b]	L[b]	32	43	32	EE
15	17	15[b]	M	33	44	33[b]	EE
16	19	16[c]	N	34[b]	46	34[b]	GG[d]
17	21	17[d]	P[d]	34[d]	47	34[d]	HH[c]
18	22	18	O	34[e]	47	34[e]	HH[d]

1799 No. 1, Obv. 1, Rev. A
No. 1, Obv. 1[b], Rev. A[b]
No. 2, Obv. 2, Rev. B

DESCRIPTION OF PLATES

REVERSES

Cent Illustrated				Cent Illustrated			
Rev.	No.	Obv.	Rev.	Rev.	No.	Obv.	Rev.
A	1	1	A[b]	S	26	21	S[c]
B	2	1	B[b]	T	27	21[d]	T[d]
C	4	3	C	U	31	24[b]	U
D	5	4	D	V	32	25[d]	V[c]
E	6	5[b]	E[b]	W	33	26	W
F	8	7	F[c]	X	34	27[d]	X[c]
G	9	7[c]	G[c]	Y	35	27[c]	Y[d]
H	10	8[b]	H	Z	37	28[e]	Z[b]
I	12	10	I[b]	AA	38	28[f]	AA 1796 G-A
J	13	11[c]	J[b] 1796 G-C	BB	39	29	BB
K	14	12	K[b] 1796 G-B	CC	40	30[b]	CC[c]
L	16	14[b]	L[b]	DD	41	30[d]	DD
M	18	16	M[b]	EE	44	33	EE
N	19	16[c]	N	FF	45	33[e]	FF[d]
O	20	17[b]	O	GG[c]	46	34[b]	GG[c]
P	21	17[c]	P[b]	GG[d]	46	34[b]	GG[d]
Q	24	20[b]	Q	HH[b]	47	34[c]	HH[b]
R	25	21	R	HH[d]	47	34[d]	HH[d]

1799 No. 1, Obv. 1, Rev. A
No. 1, Obv. 1[b], Rev. A[b]
No. 2, Obv. 2, Rev. B

1798

In determining the position of point of curl or of the highest wave of hair, in relation to the letters above, the cent must be so held that the vertical axis, or upright, of the letter is on a direct line with the eye.

This must also be done on the reverse to determine the position of point of leaf in relation to the letter above it.

KEY TO OBVERSES Point of curl below—	Highest wave of hair under—				
	Between E and R	Left edge of upright of R	Center of upright of R	Right edge of upright of R	Center of R
Left side of upright of B	1-2-7				
Center of upright of B	14				
Right side of upright of B	5-6-10 13-20-21	11-15			
Center of B	12	17-32-34 35			
Inner curve of B		36-37-38 43	25-26-27-28 29-44-45	30-31	
Center of curve of B			8-9-39	16	18-19 42
Outer curve of B					24-46 47
Between B and E				33	40-41

Nos. 3-4-22-23 top of hair unfinished so points cannot be determined.

1798

KEY TO REVERSES Point of leaf under—	Point of highest leaf under O below— Outer left curve of O	Inner left curve of O	Center of O	Inner right curve of O	Outer right curve of O	Between O and F	Under F
Left edge of upright of D			16[e]				
Center of upright of D				9			
Right edge of upright of D		7-8			2[a]		
Center of D	5[c]		3[b]-4[b]	6[d]-11[d] 28[d]-42[o] 43[o]-44[o]	19[g]-23[g] 37		17[f]-18[f]
Left edge of curve of D			24 25-26[i] 27[j]-32[k] 33-34-35[l] 39[m]-40-41[n] 45			10-12 15	
Center of curve of D		47[q]	20-21[h]-22 29-30-31 36-46[p]-				
Right edge of curve of D							1

No. 13, Reverse C of 1796—Single terminal leaves, 4 berries on each branch.
No. 14, Reverse B of 1796—Single terminal leaves, 5 berries on each branch.
No. 38, Reverse A of 1796—Single terminal leaves, 5 berries on left and 4 on right branch.

a. No. 2	Long point to right on fraction bar, dot over ^{1} of $\frac{1}{100}$.
b. No. 3, 4	Left stem runs through U.
c. No. 5	$_{100}$ very close to right ribbon.
d. No. 6, 11, 28	Small break inside top of O in OF.
e. No. 16	Bar through center of C in AMERICA.
f. No. 17, 18	6 berries on left, 5 on right branch.
g. No. 19, 23	Long point to right on fraction bar.
h. No. 21	Lump on right side of O in ONE.
i. No. 26	Crack in E in UNITED to $\frac{1}{100}$.
j. No. 27	Series of breaks from E of UNITED to OF.
k. No. 32	"Horns" on upright of M.
l. No. 35	Heavy rim break over U.
m. No. 39	E in AMERICA first cut reversed; F recut.
n. No. 41	Small ciphers inside of larger ones in $\frac{1}{100}$.
o. No. 42, 43, 44	Scratch across right ribbon connecting with A.
p. No. 46	Crack $\frac{1}{100}$ to ME.
q. No. 47	Fifth berry on left hangs down.

NEW NUMBER EQUIVALENTS TO DOUGHTY'S

No.	Doughty	No.	Doughty	No.	Doughty
1	115/New	17	New/126	33	132
2	115	18	126	34	New/New
3	New/New	19	127	35	New/New
4	New/New	20	130	36	New/130
		21	130		
5	116	22	New/130	37	New/New
6	117				
7	114	23	131	38	New/A-1796
8	111	24	123	39	135
9	112	25	118/New	40	136/New
10	113				
11	120	26	118	41	136
12	New/New	27	118	42	New/124
13	110	28	134	43	New/124
14	New/B-1796	29	119	44	124
		30	128	45	125
15	New/113	31	133	46	121
16	122	32	129	47	121

DOUGHTY'S EQUIVALENTS TO NEW NUMBERS

Doughty	No.	Doughty	No.
110	13	123	24
111	8	124	44
112	9	125	45
113	10	126	~~30~~ 18
114	7	127	19
115	2	128	30
116	5	129	32
117	6	130	20 21
118	25 26 27	131	23
119	29	132	33
120	11	133	31
121	46 47	134	28
122	16	135	39
		136	41

GROUP I

No. 1. (Obv. D-115, Rev. New)

Obverse 1. LIBERTY well spaced with IB closest; point of curl under left side of upright of B; highest wave of hair below space between E and R; junction point of hair and forehead below left side of upright of T; date close, 8 equidistant bust and margin, point of 1 closer to hair than to curl.

Reverse A. Fraction bar unusually long extending clear across the widely spaced 100 and ending in a sharp point caused by a slip of the engraver's tool, which also made a needle point scratch on right ribbon; stems long, left pointing to left bottom of U and right to right foot of A; AMERICA well spaced and final A distant from ribbon; R has the straight tail of R in LIBERTY, also found on Reverses B, I, J, K, Z, AA, CC and EE; CENT rather widely spaced; leaf does not touch C; point of leaf under T left of point of right pendant; the pair of leaves under T are widely separated from the wreath stem and cut off right foot; point of lowest leaf on left below right side of N; point of highest leaf midway S and O; five berries on each branch and all have long stems except the second on left which is stemless and free. (Note: Unless otherwise stated all reverses of 1798 have five berries on each branch.)

A[b]. A crack from rim passes through left ribbon end, left stem and ribbon loop to E in CENT; a second crack from rim touches the end of right arm of first T in STATES, runs through pendant to stand and a fork shows at right foot of A continuing to the wreath stem and showing as a "buckle" in the die through ONE to rim between E and R; another very delicate crack extends from right end of fraction bar into the field below A.

A[c]. The first [b] crack now extends to right foot of N in ONE; the second [b] crack has split above T and connects with crack at foot of A; the buckle has developed into a crack which crosses the stem and passes on to top of O in ONE; a new crack from rim between S and O passes through the top of OF and on to rim above

A; another crack from rim above second T passes through top of E, middle of S and below OF to left stand of A. Found with edge plain or partly milled.

COMBINATIONS:

1 = A
1 = A[b]
1 = A[c]

An intermediate state is known. Rare.

No. 2. (D-115)

OBVERSE 1[b]. Break in the die between neck and rim about half-way from point of bust to chin.

REVERSE B. Fraction bar short, starting between 1 and O and *ending in a long point which touches the right ribbon;* there is a *small defect, like a period,* over the numerator just below the knot; stems short, left pointing to center of bottom of U and right to left foot of A; AMERICA evenly spaced and R has a straight tail as found on Reverses A, I, J, K, Z, AA, CC and EE; in CENT all letters are close, CE almost touching; the leaf which touches the back of C is a mere outline; leaf under T just touches right stand; point of lowest leaf on left slightly left of center of N; point of highest leaf to right of center of S; all berries on long stems; second on left free; first on right standing out straight; fifth on right on very long stem. Found with edge plain or partly milled.

B[b]. The die is sinking at S OF A, there is a crack over OF, and the lower curve of O in ONE is broken. On fine specimens a very delicate crack can be seen extending from the bottom of I in UNITED to the tip of leaf under T, through outside leaf under D and to top of S; there are also two slight flakes out of the die above C in CENT and another close to inside berry.

COMBINATIONS:

1 = B
1 = B[b]
1[b] = B[b]

No. 3. (Obv. and Rev. New)

Obverse 2. LIB close, BER widely separated; top of the hair is unfinished, wave under R only showing as a mere outline, second wave has only highest part worked out and it shows a triangular lump almost touching left bottom of E; point of curl and highest wave of hair not worked out; junction point of hair and forehead below left side of upright of T; to the right of Y there is a row of straight lines, ½ mm long, running from the denticles into the field and continuing to opposite the point of the bust. These appear to have been made on the die blank for the guidance of the engraver in cutting the denticles; date well spaced, equidistant from bust to rim; point of 1 close to curl and hair; the line under the bust is very faint.

Reverse C. Fraction bar short, 1 distant from 0; stems long and heavy, *left ends in a long point which runs through bottom of* U *to right side*, right points to space between feet of A; AME and RI close; CENT evenly spaced, CE low, leaf welded to back of C; leaf touches right stand of T and point ends slightly to right of pendant; point of lowest leaf on left to right of center of N; point of highest leaf below space between E and S; stem of second berry on left starts from leaf stem and berry touches leaf, fourth berry on right well above top of E; a series of marks, like those on the obverse, show above AMERI. Found with edge plain or partly milled.

Combination:

2 = C

Very rare.

No. 4. (Obv. and Rev. New)

Obverse 3. This is the same as Obverse 2, after it had been ground down to remove engraver's marks; the bust has been ground down almost flat at the point; drapery ends in distinct points and the line under the bust is gone; a defect has developed on the bust and others below 1 and at knob of 9. Found with edge partly milled.

Reverse C.

Combination:

3 = C

No. 5. (D-116)

OBVERSE 4. This is the same as Obverses 2 and 3 after again going through the engraver's hands. The repeated grinding has made LIB weak; top of hair has been finished, the highest wave coming between E and R and touching left stand of the latter, point of curl below right side of upright of B. The bust has been reengraved and the defect, showing on Obverse 3, worked out; the defects under 1 and 9 are gone, and the line under the bust reengraved.

REVERSE D. Fraction too far to right and *final* o *very close to right ribbon;* bar very short; stems short and heavy, left points to left foot of N and right to bottom of C; AM touch, other letters evenly spaced; CENT evenly spaced with C low and T high; leaf free from C; leaf under T cuts off all of right stand and point is inside of right pendant; point of lowest leaf on left near right side of N; point of highest leaf under right side of E; STATES irregular with A low and leaning right; O below F and leans to left; wreath stems very heavy and all berries on short stems; stem and second berry on left united to leaf above. Found with edge plain or partly milled.

COMBINATION:

4 = D

No. 6. (D-117)

OBVERSE 5. LIBERTY evenly spaced, R high; point of curl below right side of upright of B; highest wave of hair almost touches ER; junction point of hair and forehead below center of upright of T; date evenly spaced, point of 1 closer to hair than to curl, 8 low; *there is a spur on back of* 9.

5[b]. A faint crack runs from back of lowest curl into the field; another starts in the field, runs to base of 1 and irregularly through the bottom of 798; another, very faint, runs from point of bust to rim; above R are two slight diagonal defects showing where die is beginning to fail.

5[c]. A crack extends along the top of LIBERTY; another from rim past 8 to the bust; the rim is heavily broken over ERTY.

5[d]. A triangular break, the left top of which just touches the bust, extends along the rim 5 mm to the right.

REVERSE E. Fraction bar long, 1 distant from 0; stems long, the left pointing to right side of U and the right to left foot of A; AM touch, ME close, other letters well spaced; there is a slight defect in the top of O in OF; E in CENT low, NT close at top; leaf touches back of C; point of leaf under T almost touches right pendant; point of lowest leaf on left to right of center of N; point of highest leaf to left of center of S; second berry on left free, and space between leaves above and below is unusually wide.

E^{b}. Faint crack along top of UNITED running into the field beyond D where it connects with a crack along top of ST, then bends down and goes through upper part of A, up and along top of TES and into the field.

E^{c}. A crack runs through top of AMERICA and die is sunken below end of right ribbon due to heavy break on obverse.

COMBINATIONS:

5	=	E^{b}
5^{b}	=	E^{b}
5^{c}	=	E^{c}
*5^{d}	=	E^{c}

Intermediate states are known.
*This combination is scarce.

No. 7. (D-114)

OBVERSE 6. LIB closely spaced, E leans to left, bottom of R below E and almost touches hair; point of curl below left edge of upright of B; highest wave of hair between E and R; junction point of hair and forehead below left edge of upright of T; 179 *evenly spaced*, 8 *more distant*, point of 1 rather close to and equidistant curl and hair. This obverse is very close to Obverses 2, 3 and 4, but can be distinguished by the greater space between 9 and 8. Found with edge plain or partly milled.

REVERSE F. Fraction bar long, extending from center of 1 to the center of final 0, 100 widely spaced with 00 closer than 1 to 0; stems short and heavy, left pointing to bottom of U and right to center of A; AME close; letters of CENT evenly spaced with leaf attached to the back of C; leaf under T close to upright and point almost touches point of right pendant; the point of lowest leaf on left is

directly under the center of N; the point of highest leaf is left of center of S; *second berry on left on a long stem and free from leaves.*

F[b]. The die is sunken from final S across OF to A.

COMBINATIONS:

6 = F
6 = F[b]

Rare.

GROUP II

No. 8. (D-111)

OBVERSE 7. The large 8 has been cut over a 7, the upper points of which show above the top of 8, and lower end shows as a point in the bottom of the lower curve; in LIBERTY the I and B are close, other letters well separated; point of curl is below center of curve of B; top of highest wave of hair under center of upright of R; junction point of hair and forehead below right side of upright of T; figures of date rather close and about evenly spaced; point of 1 distant from curl but near the curve of the hair; 7 has a heavy top and short stem; right top of the over-cut 7 just touches bust.

REVERSE F[c]. A delicate crack starts at bottom of right terminal leaves, runs down the stem and passes between A and M to rim; a branch crack runs above top of M; two more, very delicate, cracks run from rim to left top of R and through I and right side of R; the die is sinking over ER. Found with edge both plain and partly milled.

COMBINATION:

7 = F[c]

No. 9. (D-112)

OBVERSE 7[b]. A curved crack starts at rim back of the knot and runs through the field half-way to lower curls.

7[c]. A crack parallels the [b] crack from the lower ribbon to hair; two parallel cracks from rim to knot cross the [b] crack at right angles; a crack starts at lower end of the [b] crack and crosses the hair and shoulder to near top of 8; a crack from rim near L runs down to the bow.

REVERSE G. Fraction bar short running from right of 1 to center of final O; left stem longer than right, points to left side of U; right stem points to left foot of A; AME close; left foot of M above foot of A; CENT closely and evenly spaced, T high; leaf just touches back of C; leaf touches end of right stand of T; point of lowest

leaf on left directly under center of N; point of highest leaf nearly under left side of S.

G[b]. A crack runs from rim between F and A through right wreath and across tips of the two highest leaves; a second crack starts at rim, runs along back of E in AMERICA, through the leaves to stem; a third crack runs from lowest group of leaves on left, through both ribbons and numerator to rim near top of final A; there is a chip out of the die below end of left ribbon.

G[c]. The first [b] crack continues to the left, ending in the field under A of STATES; the second continues across the wreath to top of T in CENT; a crack from rim through chip and left ribbon to near bottom of U. Found with edge plain or partly milled.

COMBINATIONS:

7[b] = G
7[c] = G[b]
7[c] = G[c]

No. 10. (D-113)

OBVERSE 8. The large 8 has been cut over a 7, the left top of which shows distinctly; LIBERTY evenly spaced with IB higher than L and E; point of curl is below right side of upright of B; highest wave of hair under space between E and R; junction point of hair and forehead below left side of upright of T; date evenly spaced and closer to rim than to bust; 1 closer to hair than to curl.

8[b]. There is a straight crack from rim to hair just below the knot.

8[c]. The [b] crack now shows at curls below the ear; another crack runs from rim through outer ends of the knot and two small defects show below L.

REVERSE H. Fraction bar extends from right top of 1 to left side of final 0; 100 widely spaced with 1 distant from 0; stems long, left pointing to space between U and N and right to left foot of A; AM close with M high; balance of letters evenly spaced with exception of IC; *the cross-bar of* E *is connected with top and there is a point at top of upper pendant;* CE in CENT slightly lower than NT; leaf welded to back of C; leaf under T just touches right stand and

point passes to right of pendant; point of lowest leaf on left near right upright of N; point of highest leaf under right side of S; all berries have long stems; *the stem of second berry on left rests on the point of leaf and berry projects well beyond it.*

COMBINATIONS:

8^{b} = H
8^{c} = H

GROUP III

No. 11. (D-120)

OBVERSE 9. LIB widely spaced; ERT close; point of curl below right side of upright of B; highest wave of hair below left side of upright of R; junction point of hair and forehead below right side of upright of T; date widely spaced, curved, with figures close to margin, stem of 7 actually touching; point of 1 very close to curl, distant from hair.

9[b]. A crack runs along top of LIBE; a second runs along bottom of 17; a third starts at rim below and to left of point of bust, turns up and runs along point of bust and a short distance into the field.

9[c]. A crack starts in the field back of the knot and runs parallel to the rim to lowest curl; about two thirds of the way down a crack starts at the rim and joins this crack at a right angle.

9[d]. The third [b] crack has developed into a heavy break, connecting point of bust and rim.

REVERSE E[d]. (For Reverse E see No. 6.) The [c] crack is heavier and continues practically all around the legend; another starts at bottom of 1 in 100 and runs to U; others start at leaves under D and S and run through the field to below S and through the terminal leaves.

COMBINATIONS:

9	=	E[d]
9[b]	=	E[d]
9[c]	=	E[d]
9[d]	=	E[d]

Intermediate states are known.

No. 12. (OBV. and REV. New)

OBVERSE 10. In LIBERTY all letters evenly spaced except IB which are widely separated; Y low; point of curl slightly right of upright of B; highest wave of hair below space between E and R; junction

point of hair and forehead below center of upright of T; date widely spaced with 1 and 7 farthest apart; 8 *high with top embedded in the bust;* point of 1 close to and equidistant curl and hair. Found with edge plain or partly milled.

10ᵇ. A crack from upper point of drapery to rim.

REVERSE I. Fraction bar long but 1 is so far to the left that it only extends over 00; stems short, left pointing to right bottom of U and right to left foot of A; CENT closely and evenly spaced; leaf just touches C; leaf under T touches right bottom of upright and point is to left of right pendant; point of lowest leaf on left to right of center of N; point of highest leaf under right side of S; R in AMERICA has straight tail, as on Reverses A, B, J, K, Z, AA, CC and EE.

Iᵇ. There is a swell in the die under UNITED, particularly heavy under ED making these letters very weak.

Iᶜ. A heavy swell in the die runs from near F to I, only the left foot of A shows and the left side of M is nearly gone.

COMBINATIONS:

10	=	Iᵇ
10ᵇ	=	Iᶜ

GROUP IV

No. 13. (D-110)

OBVERSE 11. LIBERTY very widely and evenly spaced; point of curl under right side of upright of B; highest wave of hair below the space between E and R and almost touching those letters; junction point of hair and forehead just to left of foot of T; *date more widely spaced than on any other variety;* point of 1 close to curl and distant from hair; 8 close to bust.

11[b]. A faint crack runs from rim through the center of L.

11[c]. The [b] crack continues through I and bottom of B to hair; another runs through lower curls and left top and stem of 7 to rim; where this crack enters 7 another branches to the right, crosses a crack from drapery down along back of 9 and continues above 8; another runs from drapery diagonally through 8.

REVERSE J. This is Reverse C of Gilbert-Elder "Cents of 1796". Fraction compact with the bar same length as 100; stems long, left pointing to left top of U and right ends even with and to right of right foot of A; ribbon ends level with bottom of 100 and widely separated; AME connected; ER close; E in ONE low and top very close to N; C in CENT low and distant from E; ENT very close; leaf distant from C; point of highest leaf of group of three under T level with and to right of foot; there is a group of three leaves under UN and point of lowest is directly under right side of U; single terminal leaves, the point of one on right below the left, and both points below center of E; three groups of three leaves each on outside of left branch and one on outside of right; four berries on each branch, the second and third on left and first and second on right being directly opposite. This die is found in two states in 1796, perfect, and rusted between end of left stem and U and between E and T in ONE CENT. It is the second state which we have in Reverse J, so far as seen, and in addition to the rust spots a slight crack runs from right top of N to above E of ONE. These spots and the crack are so slight that they can only be seen on exceptional specimens. R in AMERICA has the

straight tail of Reverses A, B, I, K, Z, AA, CC and EE. No. 13 is sometimes found on large planchets 30 mm in diameter. Found with edge plain or partly milled.

COMBINATIONS:

11 = J[b]
11[b] = J[b]
11[c] = J[b]

Intermediate states are known.

No. 14. (OBV. New, REV. B-1796)

OBVERSE 12. LIB close; BERTY more widely spaced; point of curl below center of upright of B; highest wave of hair below space between E and R; junction point of hair and forehead below left side of upright of T; date close with 8 slightly more distant from 9; point of 1 very close to hair; 8 *high and close to bust.*

12[b]. A crack from rim near point of bust runs into the bust and splits, one branch continuing upwards and the other, bending to the left, runs through drapery and hair into the field.

REVERSE K. This is Reverse B of Gilbert-Elder "Cents of 1796". Fraction compact with bar the same length as 100; stems long, the left pointing to center of left side of U and right ends even with and to right of right foot of A; the widely spread ribbons end opposite the center of 100; a scratch running upward from the outside of right ribbon end shows again on upper side of right stem; A leans left and its foot overlaps foot of M; MER connected; E in ONE connected to N; T in CENT low and connected to N; point of lowest leaf of group of three back of C points to just below center of that letter; point of lowest leaf of group of three under T points to center of upright; lowest leaf on left points to center of bottom of U; points of single terminal leaves below the center of E; three groups of three leaves each on outside of both branches; five berries on each branch, the first on right near bow and attached to wreath stem; R in AMERICA has the straight tail of Reverses A, B, I, J, Z, AA, CC and EE. Found with edge partly milled.

K[b]. There is a fine crack from the top of O to top of F.

COMBINATIONS:

12 = K[b]
12[b] = K[b]

Rare.

No. 15. (Obv. New, Rev. D-113)

Obverse 13. LIBERTY evenly spaced and close to the hair; point of curl below right side of upright of B; highest wave of hair below left side of upright of R; junction point of hair and forehead below right side of upright of T; date spaced 1 79 8; point of 1 distant from curl and close to hair.

13[b]. A crack from rim runs through left top of Y and foot of T to forelock.

Reverse H. (For Reverse H. see No. 10.)

Combination:

13[b] = H

Rare.

No. 16. (D-122)

Obverse 14. LIBERTY evenly spaced, distant from hair; point of curl below center of curve of B; highest wave of hair under right side of upright of R; junction point of hair and forehead slightly right of foot of T; 179 evenly spaced; 8 more distant and midway bust and margin; point of 1 equidistant curl and hair; *below the* 9 *are three denticles united*, the center and highest one directly below the knob of 9.

14[b]. The die is rusted above the hair and the curl now ends in a short stumpy point; an irregular break, in the form of a series of dots, runs from rim to lowest point of neck, and die is rough along neck and bust.

14[c]. The [b] cracks are heavier, die is heavily pitted around these cracks and, more lightly, on and in front of face, through LIBERTY and back of head to knot; another irregular break runs through 798 and to rim below point of bust.

Reverse L. Fraction bar long, from right top of 1 to center of final 0; 1 widely separated from 0; stems heavy, left ends in a point and points to center of bottom of U, right points to left foot of A; AME just touch, ER close, RICA well spaced; *there is a bar through the vertical center of* C; E in ONE recut; CENT evenly spaced; bottom of E below N; leaf welded to back of C; leaf just touches right stand of T and point is to right of and just below

right pendant; point of lowest leaf on left to left of center of N; point of highest leaf to left of center of S; first and third berries on left on very long stems; second close to leaf above, but free; there is a defect in the die near center of right bow.

L[b]. Crack along top of ITED running to the rim between D and S; a second crack from the foot of second T in STATES runs to bottom of O.

L[c]. Die badly rusted and scratched through center; the first [b] crack starts at rim above N, has a branch crack from left top of E to rim, and is heavier; the second has a branch from rim to top of T and is continued to foot of F; a third crack starts at the wreath, runs nearly to the rim between S and O and there are several other small cracks.

COMBINATIONS:

14	=	L
14[b]	=	L[b]
14[c]	=	L[c]

No. 17. (OBV. NEW, REV. D-126)

OBVERSE 15. LIBERTY *very widely and evenly spaced, more so than any other obverse of this year;* point of curl under center of B; highest wave of hair below left edge of left foot of R and very close to that letter; junction point of hair and forehead below left foot of T; date evenly and rather closely spaced, the point of 1 equidistant curl and hair, 7 slightly below top of 19 and 8 equidistant bust and broad border.

15[b]. A very heavy rim break from above E slants downward, touching top of RTY, then up to rim a short distance to right of Y.

REVERSE M. Fraction bar short, *cut square at ends* and runs from right of 1 to left inner curve of final 0; 100 widely spaced with first 0 low; denominator too far to left; stems short, left points to bottom of U and right to space between feet of A; AMERICA very widely spaced; CENT closely spaced, NT touching, E slightly low; leaf distant from back of C; leaf cuts right foot of T and point is slightly left of point of right pendant; point of lowest leaf on left below center of N; point of highest leaf midway S and O; *six*

small berries on left branch, five on right; second berry on left on very short stem; fifth on right very small.

COMBINATION:

15^{b} = M

Very rare.

No. 18. (D-126)

OBVERSE 16. LI close, Y distant from T and low, other letters evenly spaced; point of curl below center of curve of B; highest wave of hair below center of R; junction point of hair and forehead well to right of T; date well spaced; 9 leans to left; point of 1 about equidistant curl and hair; line under the bust is light and ends 2 mm from the hair.

16^{b}. Three parallel cracks in field back of the head, the inner one running through the hair ribbons and bottom curl.

REVERSE M^{b}. Crack from rim to left top of T in UNITED, then diagonally through T, a double crack, two outside pairs of leaves, right foot of A in STATES through T to rim; another crack runs from second pair of leaves through sixth berry to single leaf and left top of E.

M^{c}. A heavy rim break starts to the left of I and extends along and covers top of ITE to stand of D with a crack from left top to bottom of T; the second ^{b} crack much heavier and an additional crack runs from rim to top of final S.

COMBINATIONS:

16 = M
16 = M^{b}
16^{b} = M^{b}
16^{b} = M^{c}

Intermediate states are known.

No. 19. (D-127)

OBVERSE 16^{c}. The ^{b} cracks are heavier and the middle one extends to rim back of lowest curl; the inner crack runs to rim to left of L and continues along top of LIB.

16[d]. A branch crack starts at upper ribbon, runs to left top of L and joins the crack along top of LIB; rim is heavily broken over L.

REVERSE N. Fraction bar long, ending in a point which extends almost to right ribbon; 1 distant from 0 and to left of end of bar; stems long and widely spread, left points to right of U and right to space between C and A; AME close, ERICA evenly spaced; CENT closely spaced, CE slightly low; leaf welded to back of C; leaf just touches right stand of T and point is close and to right of pendant; point of lowest leaf on left slightly past center of N; point of highest leaf to right of center of S; second berry on left free; second on right high above the first; *there is a triangular cut in the die joined to the outside leaf under* I *in* UNITED *and two more on the upper side of left stem.*

N[b]. A crack from rim above A in STATES, through T and left bottom of E, to tip of lower leaf of right terminal pair.

N[c]. A crack from rim between D and S through left branch and terminal leaf to [b] crack; another from right bottom of E along back of S to rim above; another from rim between F and A to right wreath; another along top of OF to rim; from the [b] crack another runs along top of A to T; another runs from rim above N along top of ITE with a cross crack from rim to center of T; there is a defect over right top of M.

COMBINATIONS:

16[c] = N
16[c] = N[b]
16[c] = N[c]
16[d] = N[c]

An intermediate state is known

No. 20. (D-130)

OBVERSE 17. LIBERTY widely and evenly spaced, tops of B and E weak; point of curl below right side of upright of B; highest wave of hair below space between E and R; junction point of hair and forehead below left side of upright of T; date widely spaced, 9 and 8 most distant; point of 1 distant from curl and hair but closer to hair. This obverse, when in fine condition, shows faint

engraver's marks running from denticles into the field opposite point of bust.

17[b]. A faint crack in the die runs from rim across neck and upper part of drapery into the hair; there is a very light chip out of the die near rim back of hair and a small defect to left of 1.

Reverses O, P, Q, R, S, T, U, V, W, X, Y, CC, FF, GG and HH form a group of very similar dies which were "lumped" by Doughty as "Reverse H". He overlooked the fact that the same die could not possibly crack in two or three different places and yet never show but one of the cracks at a time. A careful study of this group shows that many, if not all of them, must have been struck from the same "hub" and the slight differences were caused by the engravers in finishing the dies. Below is given a general description of this group of reverses, and later descriptions will merely indicate wherein they differ from O.

General description of group of Reverse O. Fraction evenly spaced between the ribbon ends; fraction bar short, reaching from the right side of 1 in 100 to the inner left curve of final 0 and is well above 100. (The fraction bar varies somewhat and will be noted.) Left stem points to right side of U, and right to left foot of A; ribbon ends widely spaced and one on right is close to A; point of lowest leaf on left is just to left of right side of N; point of leaf under right side of D; space between terminal leaves directly under right side of E; point of lowest leaf on right to right of center of C; D in UNITED tilted to the right; OF closer to A than to S; AMER close and ICA more widely spaced; sixteen leaves and five berries on left and nineteen leaves and five berries on right branch; with or without center dot.

Reverse O. E in UNITED perfect; E in STATES with imperfect, short left stand; N in ONE wide with right top imperfect; N in CENT narrow, perfect. (This description of the N's applies to all dies in this group so will not be repeated.) R in AMERICA perfect; C in CENT perfect and heavy, the top, in some specimens, shows signs of correction, touches leaf; leaf close to upright of T in CENT; both pairs of leaves under T free from wreath stem; first berry on left has short stem and points to bottom of C; second berry has long stem; first and second berries on right have short stems and second touches wreath stem; E in AMERICA defective on top; center dot. *A distinguishing feature of this reverse*

is a pair of scratches in the die running from the denticles to the tops of E *and* R, there is also a slight defect between D and S with a scratch running toward it from the back of C.

COMBINATIONS:

17 = O
17[b] = O

NOTE: In order to avoid repetition UNITED, STATES, AMERICA and CENT will not be repeated in subsequent descriptions of this group as the E's, R, C, and T will always appear in the same order as above.

No. 21. (D-130)

OBVERSE 17[c]. A rather heavy crack across the bust from point of drapery and a faint diagonal crack across L; a second defect has developed from rim back of the hair.

17[d]. A crack starts at rim opposite neck curving downward toward point of bust; another starts near same point and runs to nose; another starts from rim and parallels this last up the field; another starts at rim opposite top of knot and runs down the field for a distance of 10 mm, then curves into the hair; from first rim defect in [b] the crack continues to hair; defect at 1 is larger, and another has developed between 1 and 7; the [c] crack is heavier; there is a slight crack at bottom of LIB.

REVERSE P. For general description see Reverse O. O *in* ONE *has a lump on the right side, on all other reverses of this year* O *is perfect;* C in CENT imperfect at top, touches leaf and is slightly lower than E; stand of T cut over leaf; inside pair of leaves under T free from stem, and outside pair just touch; berries large and first on left points directly to angle formed by leaf and C; very faint center dot.

P[b]. A light crack starts at center of curve of D and runs diagonally up to rim; another starts above top of first T in STATES, curves down to top of A and continues along top of TES.

P[c]. From the back of D a second crack runs diagonally through top of wreath to bottom of O in OF; crack above STATES has developed into a heavy rim break extending from A to S and con-

tinued as a crack to top of O; a crack starts at rim below 1 of 100, runs through left ribbon and UNIT to rim; additional minor cracks can be seen on fine specimens.

P[d]. Rim break much heavier and extends across tops of A and S.

COMBINATIONS:

17[b]	=	P
17[c]	=	P[b]
17[d]	=	P[c]
17[d]	=	P[d]

Many intermediate states are known.

No. 22. (OBV. New, REV. D-130)

OBVERSE 18. LIB close, BERTY more widely spaced, Y large and low; *top of hair unfinished;* junction point of hair and forehead below right side of upright of T; date straight on top and evenly spaced, top of 1 almost square, point equidistant curl and hair, knob of 9 perfect. *This is the only* 1798 *die known having a blunt* 1 *and a round, perfect knob on* 9. The line below bust is straight, close to bust and *does not* continue to the hair.

REVERSE O[b]. (For Reverse O see No. 20.) A crack starting at rim between S and O runs above OF and A.

COMBINATIONS:

18	=	O
18	=	O[b]

No. 23. (D-131)

OBVERSE 19. LIB close, BERTY more widely spaced, Y large and slightly low; *top of hair unfinished;* junction point of hair and forehead below right side of upright of T. (In above particulars this die is identical with Obverse 18.) Line under bust distant from bust and *connects with hair;* date straight on top and evenly spaced, 1 *pointed and knob of* 9 *slightly flattened;* date is also slightly wider than Obverse 18.

19[b]. A faint crack connects RTY at the top.

19[c]. A crack starts at rim below hair, runs into the field about 1½ mm, then turns sharply right under 17 and back to rim at a right angle; a second crack runs from end of first crack up through 7, bust and hair, curving slightly to the left; a third starts at rim above R and runs through that letter into the hair; the [b] crack is heavier; a fourth starts at rim opposite nose and runs through upper lip, cheek, ear and hair, then curves slightly downward through lowest ribbon to rim.

Reverse N[d]. (For Reverse N see No. 19.) Additional crack from rim to top of first A in AMERICA, down right side and across wreath and top of ONE to left branch; another from rim to left top of M; all [c] cracks heavier.

Combinations:

19[b] = N[c]
19[c] = N[d]

Intermediate states are known.

No. 24. (D-123)

Obverse 20. LIBERTY widely and evenly spaced with B slightly above I; point of curl below right side of curve of B; highest wave of hair below center of R; junction point of hair and forehead below right foot of T; date evenly spaced, curved, 9 leans slightly left, point of 1 close to hair and points directly into angle formed by hair and curl.

20[b]. Die has begun to scale in front of face and a series of flaked spots, starting in the field opposite the nose, run diagonally downward into the bust; there is a swell, caused by sinking of the die, to right of 8.

20[c]. Flaking heavier, and swell in die extends through date and curl. In advanced stages of this sinking, slight wear of the coin obliterates lower curls and 17.

Reverse Q. For general description see Reverse O. First E wide, perfect; second narrow with short left stand; C perfect, with heavy top, lower point extends upward more than usual, just touches leaf; inside pair of leaves under T distant from stem, outside pair

free; first berry on left short stem and points to leaf; second short stem starting from leaf stem above; first and second berries on right long stems starting directly opposite; fraction bar short; no center dot. This reverse is sometimes found "upset" when used with perfect obverse.

COMBINATIONS:

20 = Q
20b = Q
20c = Q

Intermediate states are known.

GROUP V

No. 25. (Obv. D-118, Rev. New)

Obverse 21. In LIBERTY the I and B are slightly closer than the other letters; Y low and distant from T; point of curl below inner curve of B; highest wave of hair under center of upright of R; junction point of hair and forehead slightly right of upright of T; in date 1 and 7 are the most distant and 179 are on the same top line; 8 large and high; point of 1 slightly closer to hair than to curl; the bottom of 9 is wedge-shaped; *there is a slight defect, a nick in the die, under the chin* and, on very fine specimens, a corresponding nick can be seen *below the drapery*.

Reverse R. For general description see Reverse O. Left stem points to space between U and N; left pendant of T in UNITED defective; D high; E in STATES high and leans to right; above the left foot of second T in STATES there is a small chip out of the die; both E's wide, perfect; C low, perfect, just touching the leaf; inside pair of leaves under T *widely separated from wreath stem*, outside pair overlap the stem; first berry on left, long stem, points to leaf; second berry just touches leaf and stem; first and second berries on right medium stems; center dot.

R^{b}. A heavy crack runs from first outside berry on right through the tips of two leaves to rim between I and C.

Combinations:

21 = R
21 = R^{b}

Rare.

No. 26. (D-118)

Obverse 21.

Reverse S. For general description see Reverse O. Both E's wide, perfect; R imperfect at top; first A in AMERICA has left leg small and shorter than the right; C very imperfect at top and bottom ends in a short, heavy point, touches leaf; both pairs of leaves under

T free from stem; first and second berries on left and right long stems; no center dot.

S[b]. All examples seen of Reverse S have a crack starting at rim above right side of E in UNITED, running in a curve through E, outside leaves, stem, ribbon, numerator and right side of final o to rim; first A in AMERICA generally very weak and occasionally entirely gone.

S[c]. The [b] crack is much heavier and involves the whole right side of E; the rim is broken over first T in STATES and there is a crack from left top to rim; C is connected to the leaf by a break.

COMBINATIONS:

21 = S[b]
21 = S[c]

Intermediate states are known.

No. 27. (D-118)

OBVERSE 21[b]. A crack runs from rim through right side of 8 into the drapery where it curves sharply to the right to point of bust.

21[c]. A faint crack runs from rim to eye.

21[d]. The [b] crack forks and the new crack runs across the bust; the original crack continues into the field from point of bust; the [c] crack is heavy and continues across eye and head past the knot, just above the ear it meets a crack running up through the hair and B to rim; back of lower curls there is a slight, curved crack in the field.

REVERSE T. For general description see Reverse O. First E wide, perfect; second narrow, imperfect; C perfect and shows correction at top, free from leaf; inside pair of leaves under T distant from stem, outside pair touch; first and second berries medium stems; fraction bar short; center dot.

T[b]. All examples of this reverse seen have a break starting at center of E in UNITED, appearing again in the field to left of right terminal leaves and crossing them to tip of highest outside leaf.

T[c]. A crack starts at rim between T and A, curves to right top of T, then down across wreath to top of O in ONE.

T[d]. The [b] crack is heavier; the [c] crack continues across O to the center dot; the rim is broken above NI and TE in UNITED and heavily broken above first T in STATES involving the whole top of that letter; there are some light scratches between the feet of I and T and on both ribbons.

COMBINATIONS:

$21^{b} = T^{b}$
$21^{c} = T^{c}$
$21^{d} = T^{d}$

Intermediate states are known.

GROUP VI

No. 28. (D-134)

OBVERSE 22. LIBERTY close to border, evenly spaced with the exception of IB which are slightly closer, B and Y high; point of curl below inner curve of B; highest wave of hair below upright of R; junction point of hair and forehead below right foot of T; date widely and evenly spaced, point of 1 equidistant hair and curl.

REVERSE E^{e}. (For Reverse E see No. 6.) The $^{b,\ c}$ and ^{d} cracks heavier and a crack starts at rim below left ribbon and runs to top of U; the die has rusted and small pits can be seen in many places, particularly around UNI and AME.

COMBINATIONS:

22 = E^{b}
22 = E^{c}
22 = E^{e}

No. 29. (D-119)

OBVERSE 22.

REVERSE U. For general description see Reverse O. First E wide, perfect; second narrow, imperfect; C perfect with very heavy top, it leans to right and top is close to E, just touches leaf; leaves under T close to stem but free; first berry on left short stem, *second stemless* and held between point of leaf below and stem above; first and second on right short stems; final o to right of short fraction bar; no center dot. Found with edge plain or partly milled.

COMBINATION:

22 = U

Scarce.

No. 30. (D-128)

OBVERSE 23. LIBERTY evenly and widely spaced; point of curl below inner

curve of B; highest wave of hair below right side of upright of R; junction point of hair and forehead below right side of upright of T; date widely spaced, curved and close to border; point of 1 equidistant hair and curl.

23[b]. A curved crack starts at rim opposite the knot, runs through ribbon ends and to rim back of lowest curl; there is a swell in the die between this crack and the rim; a second crack runs from rim, through left side of T to forelock; a small lump in the field to right of Y.

REVERSE U.

COMBINATIONS:

23 = U
23[b] = U

No. 31. (D-133)

OBVERSE 24. LIBERTY evenly spaced; point of curl below inner curve of B; highest wave of hair below right side of upright of R; junction point of hair and forehead below right foot of T; date evenly spaced, curved; point of 1 slightly closer to hair than to curl.

24[b]. A heavy rim break starts close to left top of L and extends 7 mm to the left and 1 mm into the field.

24[c]. A heavy crack runs from rim over right top of T and through the bottom of Y to rim opposite chin; the rim break has become longer.

REVERSE U[b]. The die has been injured over ER and the tops of those letters have a saw-tooth appearance.

COMBINATIONS:

24[b] = U
24[b] = U[b]
24[c] = U[b]

Scarce.

No. 32. (D-129)

OBVERSE 25. LIBERTY unevenly spaced, closer to border than to hair, IB close, E large and leans right; point of curl below center of B; highest wave of hair below left side of upright of R; junction

point of hair and forehead below right side of upright of T; date evenly spaced; 7 recut on top; point of 1 rather close and equidistant hair and curl.

25[b]. There is a small chip out of the die to left of L; a row of impressed denticles extends from above I to Y; a rim break to right of Y and the die has been injured below this break; from this injury a series of scratches appear in the field, on the neck and from left of 7 to rim; a very delicate crack runs through the field between RTY and hair; below the ear are two small pits in the die; a small rim break to left of L. Found with double profile.

25[c]. The rim break covers top of Y.

25[d]. Rim break heavier and die is sunken over TY.

Reverse V. For general description see Reverse O. E's perfect, wide; cross-bar of second E connected with top; C low, perfect, but shows correction at top, touches leaf; both pairs of leaves under T close but free from stem; second berry on left stemless and held between point of leaf and stem above (like Reverse T); first and second on right short stems; M *first started too low and upper points show faintly on both uprights;* top of E defective and upright shows recutting; minute center dot.

V[b]. A slight scratch in the die appears in the field below E in UNITED, and again below E in AMERICA; a hairline crack extends from ribbon to ribbon, just above the fraction bar, to right foot of A.

V[c]. A crack extends to left top of U and the rim is slightly broken above final A in AMERICA.

V[d]. Rim heavily broken above ICA.

Combinations:

25	=	V
25[b]	=	V[b]
25[c]	=	V[c]
25[d]	=	V[d]

Intermediate states are known.

No. 33. (D-132)

Obverse 26. LIBERTY evenly spaced with the exception of BE which are distant; Y low and imperfect; point of curl below space between

B and E; highest wave of hair below right side of upright of R; junction point of hair and forehead slightly right of foot of T; date evenly spaced and top nearly on a straight line; point of 1 closer to hair than to curl.

26ᵇ. Heavy rim break over RTY touching the top of those letters.

26ᶜ. The ᵇ break now extends above top of E and rim is broken above LI.

Reverse W. For general description see Reverse O. First E wide, perfect; second narrow, imperfect; C perfect, heavy, just touches leaf; both pairs of leaves under T free from stem but close; first berry on left short stem, touches wreath stem, second touches point of leaf below and stem above; first and second on right short stems, the second almost stemless; all berries large; center dot, on fine specimens a small dot can be seen to the right of and slightly above the center dot. This reverse is found half "upset".

Wᵇ. A crack runs along the top of NITE.

Combinations:

26 = W
26ᵇ = W
26ᶜ = Wᵇ

Intermediate states are known.

No. 34. (Obv. and Rev. New)

Obverse 27. LIB slightly closer than other letters; point of curl to right of center of B; highest wave of hair below left side of upright of R; junction point of hair and forehead below right side of upright of T; in date, 17 closer than other figures; point of 1 about equidistant hair and curl; *there is a small point on top of* 1.

27ᵇ. All examples of this die seen show a small defect slightly below and to left of L, and another below and to right of Y; below the knot and close to the hair are several small defects in the die and a much fainter defect runs from rim into the field about on a level with the lowest curl.

REVERSE X. For general description see Reverse O. Fraction bar very short extending from right side of 1 to left side of final 0; first E wide, perfect; second narrow, imperfect; C low, corrected at top and lower part is a flat curve ending in a sharp point, touches leaf; both pairs of leaves under T free from stem; first and second berries on left medium stems; first on right long stem, second short and berry is flat on the left side; berries large; *left top of* M *missing;* no center dot.

X[b]. A slight crack runs from rim into the field between the end of left ribbon and 1.

X[c]. The [b] crack is heavier; there is very heavy suction from the head on lower part of wreath and LIBERTY is incused under the fraction; there is a slight chip out of the die between F and A.

COMBINATIONS:

27[b] = X[b]
27[b] = X[c]

Intermediate states are known.

No. 35. (OBV. and REV. New)

OBVERSE 27[c]. The die is sinking above LI caused by heavy rim break above U.

REVERSE Y. For general description see Reverse O. Fraction bar extends from middle of 1 to middle of 0; first E wide, perfect; second narrow, imperfect; C low, badly shaped, corrected at top, lower curve flat, touches leaf; both pairs of leaves under T free from stem but close; first berry on left short stem, close to wreath stem; second crowded in between point of leaf and leaf stem above; second on right touches wreath stem; M *perfect; left top of* E *in* AMERICA *very long and cross-bar connected to top;* no center dot.

Y[b]. Heavy rim break over U covering the whole top of that letter and extending from above center of N almost to 1; a crack extends along the tops of inside pair of leaves back of O in ONE past outside pair and a short distance into the field.

Y[c]. A second crack starts at rim, passes through right side of A in STATES, across terminal leaves and through outside leaves in right branch to M; a third runs from tip of leaf under ST to A.

Y[d]. The first [c] crack runs into M, the second is stronger, and another crack runs from rim through back of C in AMERICA to the wreath.

COMBINATIONS:

27[c]	=	Y[b]
27[c]	=	Y[c]
27[c]	=	Y[d]

No. 36. (OBV. New, REV. D-130)

OBVERSE 28. LIB closer than the other letters, Y low and imperfect; point of curl below inner curve of B; highest wave of hair below left side of upright of R; junction point of hair and forehead below right side of upright of T; date evenly spaced and follows curve of border; point of 1 equidistant hair and curl.

28[b]. A crack starts at point of bust and runs perpendicularly up the field to level of the mouth and appears again at right of Y.

28[c]. The [b] crack is much heavier and covers point of bust; there is a crack connecting 7 and 9, and another down right side of R.

REVERSE O[b]. The [b] crack is stronger and the defect between D and S is larger than when found coupled with Obverse 18 of No. 22. Found with edge both plain and partly milled.

COMBINATIONS:

*28	=	O
28	=	O[b]
28[b]	=	O[b]
28[c]	=	O[b]

*This combination is rare.

No. 37. (OBV. and REV. New)

OBVERSE 28[d]. The [b] crack continues to increase in size, and a crack starts at rim below point of bust, runs through date, connecting with the second [c] crack and into the field beyond lowest curl.

28[e]. The [b] crack still increasing and extends past Y; the [d] crack is double between 9 and 8, and the lower crack extends across 9.

REVERSE Z. Fraction bar long; I distant from O which is low; stems short, left pointing to right bottom of U and right to left foot of A; ribbon ends widely separated, left ribbon is weak in the upper and right in lower half; AMERICA evenly spaced; final A slightly low; R has straight tail like Reverses A, B, I, J, K, AA, CC and EE; CENT evenly spaced, C and E low; C perfect with large top and lower end blunt, just touches leaf; leaf under T touches right bottom of upright and point is to left of and slightly below tip of right pendant; point of lowest leaf on left just past center of N; point of highest leaf to right of center of S; first berry on left has very long stem, second attached to leaf above; *first berry on right opposite bottom and second opposite top of* T; center dot.

Z[b]. Point of bust is incused between F and A.

COMBINATIONS:

28[b] = Z
28[c] = Z[b]
28[d] = Z[b]
28[e] = Z[b]

Intermediate states are known.

No. 38. (OBV. NEW, REV. A-1796)

OBVERSE 28[f]. The [b] crack is much heavier and extends to rim opposite point of bust.

REVERSE AA. This is Reverse A of Gilbert-Elder "Cents of 1796". Fraction compact, bar long; first O low; stems long, left pointing to left side of U and right to right stand of A; U and A distant from ribbon ends; AM touch, MER very close, R has straight tail like Reverses A, B, I, J, K, Z, CC and EE; CENT irregular, NT high; C widely separated from leaf; the leaf under T points directly to right pendant; the point of lowest leaf on left just to right of center of N; groups of three leaves under IT, D and CA; a leaf points to center of A; terminal leaves single and under right side of E; nineteen leaves and five berries on left

and eighteen leaves and four berries on right; CENT *too far to the right with* O *of* ONE *almost directly over* C.

COMBINATIONS:

28e = AA
28f = AA

Rare.

No. 39. (D-135)

OBVERSE 29. LIBERTY evenly spaced; point of curl below center of curve of B; highest wave of hair below center of upright of R; junction point of hair and forehead below right side of upright of T; date evenly spaced and top in a straight line; point of 1 equidistant hair and curl. On some specimens there is a swell in the die back of the lower curls.

29b. A slight defect or crack in the die running from between I and B almost to the hair and a small defect below upright of L about half-way to the hair.

REVERSE BB. Fraction bar short; 100 compact with first 0 slightly low; stems short, left pointing to bottom of U and right to left foot of A; AMER close, ICA distant; E *first cut reversed*, lower point and upright show; F recut and very irregular; CENT evenly spaced, C low, just touches leaf; leaf under T touches right foot and extends a short distance above it; point of lowest leaf on left nearly below right side of N; point of highest leaf slightly right of left side of S; first berry on left on long stem, second very short stem and touches point of leaf; second on right very short stem and flat on inside; minute center dot.

BBb. Numerous small defects, flaking of the die, have developed, principally around final S, the fraction and IC.

COMBINATIONS:

29 = BB
29b = BBb

No. 40. (OBV. D-136, REV. NEW)

OBVERSE 30. LIBERTY very close to border and evenly spaced with the exception of IB which are close; point of curl slightly right of

curve of B; highest wave of hair below center of R; junction point of hair and forehead below right foot of T; date evenly spaced with 9 slightly low; point of 1 equidistant hair and curl; just below the ear is a "bald" spot where the hair was not worked up.

30[b]. A crack from rim just below the knot runs almost to the hair; delicate crack connects the tops of ER.

REVERSE CC. For general description see Reverse O. C in CENT perfect with upper point sharp, just touches leaf and is slightly lower than E; stand of T cut over leaf; inside pair of leaves under T free from stem and outside pair just touch; AMERICA widely spaced; the R has straight tail like Reverses A, B, I, J, K, Z, AA and EE; no center dot.

REVERSE CC[b]. The rim over ATE broken, the break, touching all the top of T, comes very close to the left top of E.

REVERSE CC[c]. The [b] break is heavier extending from top of first T over A, the whole top of second T is covered and only pendants show, there is a tongue extending from the break down to left top of E; a second break, 8 mm long, covers the top of U and left top of N.

COMBINATIONS:

30[b] = CC[b]
30[b] = CC[c]

Very rare.

No. 41. (D-136)

OBVERSE 30[c]. A second crack from rim opposite point of bust runs into the drapery; the second [b] crack runs along top of LIBER.

30[d]. The first [c] crack extends to the curl and across drapery and hair to rim; two additional cracks extend from rim to upper and lower ribbon ends; a rim break has developed over L; other cracks run from highest wave of hair through base of T, from forelock through Y and from tip of nose diagonally to the rim.

30[e]. There is a crack from rim to right of 8 through bust to rim.

REVERSE DD. Fraction bar long, heavy and cut square at ends; numerator high; 100 large and spaced 1 00, *outlines of smaller ciphers show*

inside the large ones; stems short and both end in short points, left points to bottom of U and right to left side of right foot of A; AME almost touch, ERI close; all N's large, perfect; CENT closely spaced, N and T just touching; C free from leaf; ONE too far to left and leaf nearly touches O; leaf under T just touches foot and point is to right of pendant; ITE in UNITED high; point of lowest leaf on left below right side of N; point of highest near left side of S; *six berries on left branch and five on right;* first berry on left on long stem and stands almost perpendicular, second berry free and distant from leaves; fourth berry on right high above top of E; minute center dot.

COMBINATIONS:

30^{c} = DD
30^{d} = DD
30^{e} = DD

No. 42. (OBV. New, REV. D-124)

OBVERSE 31. LIBERTY evenly spaced with exception of B and E which are somewhat farther apart, B slightly high; point of curl below center of curve of B; highest wave of hair below center of R; junction point of hair and forehead below right foot of T; date evenly spaced, slightly curved; point of 1 equidistant hair and curl. Found with a fine, double profile.

REVERSE EE. Fraction bar long, 100 widely spaced; stems short, left points to space between U and N, right slightly bent and pointing to space between C and A; *a cut in the die crosses right ribbon to center of* A; AMERICA evenly spaced; R has straight tail like Reverses A, B, I, J, K, Z, AA and CC; C in CENT very close to E at top, other letters evenly spaced; leaf touches C; leaf under T cuts off whole of right stand and point is above and to left of right pendant; point of lowest leaf on left between center and right side of N; highest leaf below center of S; second berry on left on long stem and touches tip of leaf; N in ONE is low; minute center dot.

COMBINATION:

31 = EE

Rare.

No. 43. (Obv. New, Rev. D-124)

Obverse 32. LIB more closely spaced than the other letters with IB closer than LI; point of curl below inner curve of B; highest wave of hair under left side of upright of R; second wave is under center of E; junction point of hair and forehead slightly right of upright of T; date widely spaced and evenly curved; 9 wedge-shaped as on Obverse 21; 7 *short, being the same length as* 1; point of 1 equidistant hair and curl.

Reverse EE.

Combination:

32 = EE

Excessively rare, only one example being known.

No. 44. (D-124)

Obverse 33. LIBERTY evenly spaced, B high and leans right; point of curl below inner curve of B; highest wave of hair under upright of R; junction point of hair and forehead below right side of upright of T; a number of slight defects under T; date widely spaced; 9 low, leans left and is wedge-shaped as on Obverses 21 and 32; 7 short being the same length as 1; point of 1 equidistant hair and curl; there is a slight defect over 17 and opposite the neck there is a small dot. Found with a delicate double profile.

This obverse is very close to Obverse 32, *the differences being in the spacing of* LIB, *the low* 9 *in the date*, and the position of the second wave of hair which is *under the upright of* E. Obverses 32 and 33 differ from all others in having a very small 7, no longer than 1 and the use of this small 7 makes the 9 appear to be large.

33^{b}. The die is rough between the forelock and RT and there is a slight diagonal crack in front of face; the defect over 17 is heavier and additional flakes out of the die show in front of neck and back of head.

Reverse EE.

Combinations:

33 = EE
33^{b} = EE

No. 45. (D-125)

OBVERSE 33[c]. There is a faint crack from base of T into the field to opposite the nose where it bends and runs to rim opposite the neck, between the bend and the neck a "loop" crack connects the two sections of the first crack; the defect over 17 is slightly heavier.

33[d]. The [c] crack is heavier; a crack runs from rim through left side of Y to forehead.

33[e]. Another crack from throat to rim opposite point of bust continues across the neck and up through the hair to bottom of B.

REVERSE FF. For general description see Reverse O. E's perfect, wide; C perfect with a heavy top, free from leaf; both pairs of leaves under T free from stem; first and second berries on left long stems; stems of first and second on right start directly opposite; fraction bar long, cut square at ends and too far to the right; first o low; minute center dot.

FF[b]. There is a row of impressed denticles between ERICA and border; point of bust incused at OF.

FF[c]. Die failing over CA and part of LIBERTY incused at fraction; the impressed denticles of FF[b] have been worked out.

FF[d]. Rim break over IC touching top of I.

COMBINATIONS:

33[c] = FF[b]
33[d] = FF[b]
33[e] = FF[c]
33[e] = FF[d]

No. 46. (D-121)

OBVERSE 34. LIBERTY evenly spaced with exception of Y which is distant; point of curl below outer curve of B; highest wave of hair below center of R; junction point of hair and forehead slightly right of foot of T; date evenly spaced and curved with border; point of 1 slightly closer to hair than to curl.

34[b]. A faint crack starts at rim above the left top of T, runs through it and foot of Y to rim opposite the chin. (This crack was un-

doubtedly caused by using this die with the broken reverse die of 1799 overdate, as it occurs directly opposite that crack and becomes heavier in No. 47.) There is a small defect opposite the eye; a slight crack, or scratch, crosses the bust and neck towards the throat and this has been worked out in later examples as it shows a rough, but faint, depression in the die.

REVERSE GG. For general description see Reverse O. First E wide, perfect; second narrow, imperfect; C perfect, heavy, touches leaf; inside pair of leaves under T distant from stem, outside pair overlap stem; first berry on left long stem, second short; first and second on right short stems; fifth on left stands out almost straight from wreath; *the third outside and third inside pairs of leaves on the right are stemless and not connected to the wreath;* there is a scratch in the die running from stem through pair of leaves under M; center dot. *This is the same as* Reverse A *of* 1799.

GG^{b}. A crack starts at the rim below final 0 of 100, runs through its right side, right ribbon, first two pairs of outside leaves, the left foot of E and right top of M to rim. (GG^{b} *is the same as* Reverse A^{b} *of* 1799. I have never seen it perfect when coupled with Obverse 34 of 1798.)

GG^{c}. The rim is broken under 100 and the crack from 0 to EM is heavier.

GG^{d}. Rim break heavier touching bottom of first 0 and covering half of second; a faint crack starts from top of first 0 and runs through fraction bar to left ribbon; another starts at the ^{b} crack and runs along base of C to the middle of I.

GG^{e}. The first ^{d} crack runs through the left ribbon to end of stem and the second continues through top of I to rim.

GG^{f}. A new crack from below left ribbon runs diagonally through top of 1 to first ^{d} crack.

COMBINATIONS:

34^{b} = GG^{c}
34^{b} = GG^{d}
34^{b} = GG^{e}
34^{b} = GG^{f}

No. 47. (D-121)

OBVERSE 34[c]. The [b] crack is heavier and a second crack starts from it opposite the nose and runs to rim opposite point of bust; the defect in front of the eye is more marked and has developed into a series of scratches which appear above the [b] crack and again on the neck below the ear; the crack or scratch on neck, mentioned under [b], has been worked out and merely shows a rough depression.

34[d]. The rim is broken at lower end of the [b] crack.

34[e]. A second crack has developed from lower end of the [c] crack between it and the neck and runs up the field to opposite the nose; a new break has developed on the neck parallel to the throat and the [d] rim break is larger.

REVERSE HH. For general description see Reverse O. E's perfect, wide and show correcting at base; C perfect, heavy, showing recutting at top, free from leaf and slightly low; inside pair of leaves under T distant from stem, outside pair very close but free; the stand of T is distinctly cut over the leaf; *fifth berry on left hangs down*, the only reverse on which this occurs; U in UNITED and E in AMERICA show recutting; minute center dot.

HH[b]. A faint crack from rim below final o runs through the top of A; another starting from bottom of right ribbon runs through base of A to back of C; a faint, blurred line of denticles shows above MERI.

HH[c]. Cracks heavier and die beginning to sink above IC.

HH[d]. The second [b] crack runs through top of I to rim, a break has developed at end of right ribbon and the sinking of the die extends from top of A to above I.

COMBINATIONS:

34[c] = HH
34[c] = HH[b]
34[d] = HH[c]
34[e] = HH[d]

Intermediate states are known.

1799

THE CENTS OF 1799

No. 1.

OBVERSE 1. LIBERTY evenly spaced with the exception of IB which are close; point of curl to right of B; highest wave of hair slightly right of center of R; junction point of hair and forehead to left of foot of Y; date widely and evenly spaced with second 9 high; the second 9 has been cut over an 8 and the knob is connected to the upper part; the small 7 used on Obverses 32 and 33 of 1798 was used on this die.

1[b]. A very heavy break in the die extends from rim above left side of T through bottom of Y to rim opposite the nose; from rim above center of R another crack runs through right top of R and bottom of T joining the first crack at about the middle; a third crack starts at rim above left top of R runs diagonally through it, joins the second crack and then runs parallel to the combined first and second cracks and curves in to rim near end of first crack; to right of Y the die is badly sunken between the crack and rim and there are four incused marks, probably from RIC.

REVERSE A. *This is* Reverse GG *of* 1798.

A[b]. A crack starts at rim below final o of 100, runs through its right side, right ribbon, first two pairs of outside leaves, the left foot of E and right top of M to rim, *directly opposite the* 1[b] *crack.*

COMBINATIONS:

1 = A
*1[b] = A[b]

*This combination is extremely rare.

The order of issue, as shown by the cracked reverse of 1799 over 98 and broken obverses and reverses of 1798 No. 46, was:

1. 1799 No. 1, 1 —A (Rev. A is GG of 1798)
2. 1799 No. 1, 1[b]—A[b] (Rev. A[b] is GG[b] of 1798)
3. 1798 No. 46, 34[b]—GG[c]
4. 1798 No. 46, 34[b]—GG[d]
5. 1798 No. 46, 34[b]—GG[e]
6. 1798 No. 47, 34[c]—HH[b]
7. 1798 No. 47, 34[d]—HH[c]
8. 1798 No. 47, 34[e]—HH[d]

1799, No. 1 *was coined before* 1798, No. 46 and No. 47.

The practice of coining a later date before the earlier one has been shown by Newcomb in "The United States Cents of The Years 1801, 1802 and 1803", in the case of 1803, N-1 which was coined before N-19 of 1802 as shown by the perfect reverse. Crosby in "The Early Coins of America", page 286, under New Jersey Cents of 1788, No. 5, says "A curious fact concerning this reverse is, that while it is found on coins of 1787 with a heavy break across the shield, we have seen none of 1788 on which the break is visible".

No. 2.

OBVERSE 2. LIBERTY about evenly spaced; point of curl below outer curve of B; highest wave of hair below center of R; junction point of hair and forehead below center of space between T and Y; in date 179 are evenly spaced, the 9's are closer and the second is slightly larger and heavier than the first; point of 1 slightly closer to hair than to curl.

REVERSE B. This reverse seems to have been struck from the same hub as used for the "O" group of 1798; the general description of Reverse O, 1798, No. 19, will cover it. Both E's perfect and show recutting at the base; C perfect, almost touches leaf; C lower than E and E slightly below N; inside pair of leaves under T distant from stem, outside pair touch; point of leaf under T short and extends only slightly above foot of that letter; all berries have medium stems; second on left touches point of leaf; 100 close and heavy. Distinguishing characters of this reverse are the very heavy, recut cross-bar of E in CENT, the right heavy pendant of first T in STATES and the heavy, recut cross-bar of F; there is a slight chip out of the die below E in ONE, the so-called "Mint mark"; center dot.

COMBINATION:

2 = B

Collectors must be on their guard against *altered* 1799. The alleged rarity of this date having brought out many "1799" which have been altered from 1798. Most of these are very crude and easily detected, but occasionally a "masterpiece" turns up which is so perfect as to deceive even the experienced dealer. I have such a specimen in my collection now, altered from 1800, D-145, by changing the 800 into 799. D-145 is an "overdate" with 7 showing under the 8 and the original 9 almost perfect. The "Mint mark" was too well done and this led to detection of the fraud.

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